

**Request to Archive
With The National Centers for Environmental Information
For Near-real-time NOAA/NSIDC Climate Data Record of Passive Microwave Sea Ice
Concentration
Provided by NSIDC**

2017-02-28

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

Ann Windnagel
NSIDC
NOAA@NSIDC Project Manager
303-735-1055
ann.windnagel@nsidc.org

2. Name the organization or group responsible for creating the dataset.

NSIDC > National Snow and Ice Data Center

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

The Near-real-time NOAA/NSIDC Climate Data Record of Passive Microwave Sea Ice Concentration is generated from brightness temperature data from the Special Sensor Microwave Imager/Sounder (SSMIS) onboard the Defense Meteorological Satellite Program (DMSP) F18. Two sea ice concentration products generated by using the NASA Team algorithm developed by the Oceans and Ice Branch, Laboratory for Hydrospheric Processes at NASA Goddard Space Flight Center (GSFC) and by using the Bootstrap algorithm with daily varying tie-points are merged to provide a near-real-time time series of sea ice concentrations that fills in the latency gap of the Daily Microwave Sea Ice Climate Data Record (<https://www.ncdc.noaa.gov/atrac/projectdetails.html?id=565>).

These data include gridded daily and monthly averaged sea ice concentrations for both the north and south polar regions. There are three fields in the time series:

1. Combined sea ice concentration - CDR variable
2. Melt onset field
3. QC field

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 2016-01-01
Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

N/A

6. Approximate date when the dataset was or will be released to the public:

2017-06-30

7. Who are the expected users of the archived data? How will the archived data be used?

The expected users of these data are users interested in near-real-time sea ice concentration and sea ice melt onset and users of the Daily Microwave Sea Ice Climate Data Record (CDR) product who want to extend that time series forward in time to almost the present.

8. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

No

9. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

This data set is the near-real-time version of the Daily Microwave Sea Ice Climate Data Record (<https://www.ncdc.noaa.gov/atrac/projectdetails.html?id=565>). It can be used to extend the Daily Microwave Sea Ice Climate Data Record forward in time to almost the present (specifically it extends it forward to yesterday's date).

10. List the input datasets and ancillary information used to produce the data.

The input data set to this product is NSIDC's Near-Real-Time DMSP SSM/I-SSMIS Daily Polar Gridded Brightness Temperatures (<http://nsidc.org/data/nsidc-0080>).

11. List web pages and other links that provide information on the data.

Once this data set has been published at NSIDC (around 31 July 2017), the following URL will provide a user guide to the data set: nsidc.org/data/G10016.

12. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. From NSIDC's web site, there will be links to the user guide and ISO metadata for these data. An Algorithm Theoretical Basis Document (ATBD) will also be created and distributed. The source code package will also be available for archiving, however, this data set shares the same code base as the Daily Microwave Sea Ice Climate Data Record (CDR), so two copies will not need to be archived. Both data sets can reference the same archived code base.

13. Indicate the data file format(s).

1. netCDF-4

14. Are the data files compressed?

No

15. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

File naming convention:

Monthly files - seaice_conc_monthly_icdr_nh_f18_201604_v01r00.nc

Daily file - seaice_conc_daily_icdr_nh_f18_20160816_v01r00.nc

These files are organized first via hemisphere (north or south) and then by temporal resolution (daily or monthly).

Daily files are further broken up by 4-digit year. Checksums are also contained in this directory structure. Example of the directory structure:

north

checksums
daily
2016
2017
monthly
south
checksums
daily
2016
2017
monthly

16. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

Once the data set has been published at NSIDC (around 31 July 2017), it will be accessible via this FTP URL:
<ftp://sidads.colorado.edu/pub/DATASETS/NOAA/G10016>.

17. What is the total data volume to be submitted?

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate: 3.7MB per Day

Data File Frequency: 2 per Day

Data Production Start: 2016-01-01

18. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

I'm not sure if this counts as an "update, revision, or replacement" but once production begins (around 31 July 2017), these data will update everyday, so the newest file will need to be ingested everyday.

19. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: Boulder, CO, USA

System Name: NSIDC FTP Server

System Owner: NSIDC

Additional Information:

20. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PULL

21. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. Unknown

22. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

No known constraints apply to the data.

23. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

As part of the NOAA Climate Data Record program, we are mandated to archive these data at NCEI.

24. Are the data archived at another facility or are there plans to do so? Please explain.

These data will be archived and distributed from NSIDC.

25. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

As part of the NOAA Climate Data Record program, we are mandated to archive these data at NCEI (per Candace Hutchins).

26. Do you have a data management plan for your data?

Data are archived at NSIDC according to standard procedures and a standard data management plan.

27. Have funds been allocated to archive the data at NCEI?

Funding is available as part of the NOAA Climate Data Record Program

28. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

N/A

29. Is there a desired deadline for NCEI to archive and provide access to the data?

No deadlines for archive or access.

30. Add any other pertinent information for this request.

None